



## **Building Connections to Opportunity**

### **Summary**

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### **The Challenge**

If the New Economy is to be truly inclusive, the technological tools that have emerged in the digital era must be accessible to all. By helping all of the people in Arizona become “connected,” the state can make businesses more competitive, increase the size and productivity of its workforce, strengthen the quality of the educational system, reduce the cost of transactions between businesses and public agencies, make many services like healthcare more convenient, and give people more control over their daily lives. If it does not, Arizona’s citizens who are not connected will be left behind.

### **Breakthrough Outcome**

The state of Arizona will take a leadership role and be a partner with communities in identifying strategies for providing advanced telecommunications services to support business, education, economic, and community development.

### **Our Strategy**

The strategy is based both on increasing the accessibility and approachability of emerging information appliances. The Hot Team believes that the state will likely play a leading role in identifying ways to build the needed infrastructure, but that private-sector involvement will be paramount. As a first step in meeting the challenge and outcome outlined above, each community in the state should assess its current situation and identify market-driven reasons for providers to expand coverage. In situations where market-driven forces are not enough, the state can help find community-based solutions. For its part, Arizona should develop a statewide telecommunications strategy to ensure that existing resources are properly leveraged and that the state’s connectivity is rationale and adequate. Finally, the state and individual communities should look for ways to make existing information appliances accessible to larger portions of the population.

### **Key Implementation Requirements**

- Assist individual communities in assessing their telecommunication needs and developing a strategic plan to address those needs
- Develop a statewide telecommunications strategy that assesses the needs of the state and the options available to meet those needs
- Set a statewide educational technology standard by providing one computer for every eight students with a minimum of 100 kbs access for those computers
- Promote public access at libraries, schools and retail sites and ensure easy access to the Internet
- Create centers where business and citizens can go to learn how to apply technology to their lives

### **Measures of Success**

- Completion of the first phase of community assessments within 6 months; completion by all communities within a year
- Development of a statewide telecommunications strategy
- Connection of school computers at connectivity outlined by 2001 in conjunction with the Arizona School Facilities Board timeline

**Building Connections to Opportunity****DRAFT ACTION PLAN**

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**BREAKTHROUGH OUTCOME:** The state of Arizona will take a leadership role and be a partner with communities in identifying strategies for providing advanced communications services to support business, education, economic, and community development.

**CORE STRATEGY:**

- **Availability:** Identify market-driven means to encourage private-sector expansion of telecommunications infrastructure so that everyone has access to information appliances and technology at whatever connectivity is appropriate. For those circumstances in which no market-driven solution can be found, identify ways in which communities can “fill-in” the gaps
- **Approachability:** Help all Arizonans feel comfortable using technology and make it a part of their daily lives

**CONNECTIVITY AND THE NEW ECONOMY**

If the New Economy is to be truly inclusive, the technological tools that have emerged in the digital era must be widespread. To remain competitive in the increasingly connected world, the citizens of Arizona must not only have access to the tools, but the tools must have adequately connectivity. Who will provide those tools and the infrastructure needed to connect those tools is an important topic for discussion.

The Hot Team believes that the state will likely play a leading role in identifying ways to build the needed infrastructure, but that private-sector involvement will be paramount. As such, the Hot Team puts forward the following recommendations under the assumption that the majority of the telecommunications infrastructure will be provided by the private-sector. Each community should assess its current situation and identify market-driven reasons for expansion to encourage private-sector involvement. In situations in which market-driven forces are not enough, the state will help find community-based solutions for last-mile connectivity. Such solutions may be based along the emerging City or Douglas model or by using state-funded technical assistance to help communities identify alternative solutions. Communities should likewise look for ways to make existing information appliances accessible to larger portions of the population.

However, connectivity includes not only having the hardware and connections to the Internet, but also knowing how to use the tools and how to put them to work for individual needs. As such a second prong of the strategy is to help the people of Arizona feel more comfortable in using the technology and assimilating it into their everyday tasks.

By helping all of the people in Arizona become “connected”—in both senses, the state can make businesses more competitive, increase the size and productivity of our workforce, strengthen the quality of our educational system, reduce the cost of transactions between businesses and public agencies, make many services like healthcare more convenient, and give people more control over their daily lives. If it does not, Arizona’s citizens who are not connected will be left behind.

## Strategy I: Accessibility

As noted above, private-sector financed expansion will be the primary conduit for providing increased connectivity. To ensure that the gaps are filled and that everyone has access to information appliances and technology at whatever connectivity is appropriate, the Hot Team suggests that all communities in the state assess their current infrastructure and given that information, develop individual strategies for expanding that infrastructure. In addition, a statewide strategic plan should be developed.

## Implementation Steps

### 1. *Strategic Planning for Communities*

Objectives:	Assist individual communities in assessing their telecommunication needs and developing a strategic plan to address those needs
Possible Foundations upon which to build:	Build upon work already begin conducted by the Arizona Department of Commerce, the Government Information Technology Agency (GITA), Computer Systems Policy Project (CSPP), the Arizona Corporation Commission (ACC), the Arizona Competitive Telecommunications Coalition (ACTC) Arizona Telecommunications Industry Council (ATIC), and other organizations

The communities of Arizona are varied. Some are already well connected; some do not even have the basic services; and each has its own priorities and economic development needs. Given these differences, the state should encourage communities to conduct the CSPP Readiness Guide as a first step in gauging the community’s readiness to be a connected player in the new economy. The Guide will help identify barriers and opportunities particular to each.

To support this exercise, resources should be put in place to assist communities in completing the Guide and in providing background information on the implications of the technological changes and resulting changes in the economy. It is expected that a portion of the communities will be able to complete the Guide within six months and that all communities in the state can complete it within a year.

As more communities complete the Guide, best practices can be compiled and shared among communities. As a supporting strategy, a backbone mapping exercise will be initiated building upon the work of the ATIC Telecommunications Atlas and data from the ACC and ACTC.

## 2. *Arizona Telecommunications Strategy*

Objectives:	Begin a process by which the state will develop a telecommunications strategy that assesses the overall needs of the state and the options available to meet those needs.
Possible Foundations upon which to build:	Telecommunications Open Partnerships of Arizona (TOPAZ), Greater Arizona Development Authority (GADA); community completed assessments

Arizona should develop a statewide telecommunications strategy to ensure that existing resources are properly leveraged and that the state's connectivity is rationale and adequate. Once the CSPP Guide exercise and backbone mapping are underway, the state will have a better sense where needs exist. With this information, the state should seek to develop a telecommunications strategy, perhaps regionally based, and take the lead in identifying market driven forces that will motivate expansion of coverage throughout the state and incentivize a working relationship among providers. A model of such an approach can be found in the current efforts of TOPAZ to leverage the state government's telecommunication needs as a whole in order to encourage provision of services that will serve the whole community such as switching. The strategic plan would examine legislative and regulatory issues needed to accomplish these goals.

It is expected that a good portion of the gap that is uncovered will need to be addressed by a combination of private and public sector initiatives. GADA or other funding could be tapped for use on non-urban and last-mile needs, but the majority of the work should be market-driven and found through collaboration and cooperation.

## 3. *E-Learning Standard*

Objectives:	Provide one computer for every eight students with a minimum of 100 kbs access for those computers
Possible Foundations upon which to build:	Arizona Learning Technology Partnership, school districts, Arizona Technology Educators Association, NAU Net, Arizona Learning System

The state's schools—especially those in more remote areas—would greatly benefit from being connected to one another and to outside resources. Building upon the recommendations set forth by the E-Learning Hot Team, the state should work to provide broadband services to every school district for teacher training and high-speed access to every school for E-learning along the specifications set forth by the Arizona School Facilities Board model. The level and means of connectivity should be adjusted as technological changes dictate.

## 4. *Public Access Strategy*

Objectives: Promote public access at libraries, schools and private retail sites and ensure easy access to the Internet

Possible Foundations upon which to build: Libraries, schools, workforce one-stop shops

Financially and logistically, the state cannot provide a computer in every home or access to it. However, the state can take action to ensure that the citizens of Arizona have access to computers in other venues, including libraries, schools, etc. This can be accomplished by encouraging communities to open schools for computer use after school hours, expanding access to other locations, and encouraging the placement of computers in other such public venues.

### **Strategy II: Approachability**

Increasing the state's accessibility to the technology, however, is only the first step. For such advances to be truly useful, the people of Arizona must know how to use the tools and how to put them to work for their individual needs. Along with the initiatives coming from the other Hot Teams, the below step is envisioned to help the people of Arizona feel more comfortable in using the technology and assimilating it into their everyday tasks.

## Implementation Step

### *Technology Assistance Centers*

Objectives:	Create networks of centers where businesses and citizens can go to learn how to apply technology to their business and everyday lives
Possible Foundations upon which to build:	Small Business Development offices; community colleges; libraries, chambers of commerce, senior citizen organizations, neighborhood associations

The state should work to find ways to develop assistance centers where small- and medium-sized businesses owners can go to learn about new technology and its applicability to their businesses. Similar centers should be identified where citizens can go to learn about new technology and its applicability to their everyday life. The individual centers would be networked statewide. Resources would be housed in organizations that are most applicable to their purpose. For example, the Small Business Development offices or community colleges could be used to house business resources. Classes on using different computer programs could also be provided. In addition, web-based training/enrichment materials should be made available online.

Neighborhood organizations and other community based organizations could be used to demonstrate the value of the Internet to citizens and how them the disadvantages of being technology-skills deficient. Finally, the recommendations and activities flowing from the other Hot Teams will work toward achieving this goal.

### **Measures of Success**

According to a recent U.S. Department of Commerce survey, 41.5 percent of the households have access to the Internet. In Arizona, 42.5 percent of households have access to the Internet. In Arizona, rural areas lack broadband communications and Blacks and Hispanics have less access to the Internet. The initiatives set forth by this Hot Team will have been successful if the state doubles Internet penetration in the state in the next three years. Other key measures of success will include completion of the first phase of community assessments within 6 months and completion by the remainder within a year, development of a statewide telecommunications strategy, Connection of school computers at connectivity outlined by 2001 in conjunction with the Arizona School Facilities Board timeline, and an increase in the number of households online, the socio-economic and geographical diversity of those online, and the percentage of citizens and businesses using Internet-based services.